

REMARKS

Reconsideration and withdrawal of the rejections set forth in the Office Action dated May 5, 2004 are respectfully requested. Claims 1-14 were pending in this application at the time the present Office Action was mailed. Claim 1 and 7 have been amended in this correspondence; accordingly, claims 1-14 are now pending. More specifically the status of the application in light of this Office Action is as follows:

(A) Claims 1-14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,923,743 to Sklar ("Sklar") in view of U.S. Patent No. 5,754,455 to Jouper et al ("Jouper").

Response to Section 103 Rejection of Claims 1, 7, and 14

Claims 1, 7, and 14 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sklar in view of Jouper. For, at least, the reasons discussed below, the applied references fail to support a *prima facie* case under Section 103.

- 1- Claim 1 is directed to a test unit for an aircraft cabin telephony system and can be inserted in-line within the system to detect the presence of data signals, AC voltage, DC voltage, and over-current condition.

Claim 1 is directed to a test unit having a pair of connectors that can be inserted into an aircraft telephony system to test the system. The test unit of claim 1 is not an integral part of the cabin telephony system as recited by phrases such as "a test unit," "comprising a pair of connectors for inserting," "when the test unit is connected," etc. The test unit of claim 1 can be temporarily inserted into the cabin telephony system, for example a by a line mechanic, to detect the presence of the data signals such as AC voltage, DC voltage, and over-current condition, or lack thereof. The test unit, upon connection, indicates to the user whether or not a desired signal is present within the system.

- 2- Sklar discloses a "single-wire data distribution system and method" directed to use in a passenger aircraft.

Sklar, which is in the field of telephonic communication systems, discloses a single-wire passenger aircraft telephone distribution system that includes a set of twisted-pair cables, distribution boxes, and repeaters, wherein a single-wire transmission path is defined to enter and leave each distribution boxes. (See, e.g., Abstract.) This path is arranged so that its portions between distribution boxes occur in pairs and each path pair is formed by one of the twisted pair cables. The repeaters, which are inserted into the transmission paths, remove noise and jitter. Since only a limited number of twisted-pair cable sets are typically available to passenger aircraft cabins, Sklar's distribution system reduces the use of the twisted-pair cable sets and frees the rest for other services. (See, e.g., Summary of the Invention.)

- 3- Jouper discloses a "load distribution and management system," directed to use with a supply of limited power.

Jouper, which is in the field of power distribution, discloses an apparatus and method for management of loads and distribution of power from a supply of limited power. Jouper enables and disables the loads from the power distribution system depending on the amount of the power usage. (See, e.g., Summary of the Invention.) Jouper measures the current and/or the voltage as a means to measure the power usage for feeding back and controlling the power distribution. (Col. 4, lines 14-67, and col. 5, lines 1-10.)

- 4- The applied references fail to support a *prima facie* case under Section 103.

A *prima facie* case under Section 103 requires, *inter alia*, that the applied references teach or suggest all the claim limitations. As discussed below, the applicants respectfully submit that the applied references fail to disclose or suggest the combination of features recited in claim 1.

Sklar does not teach or suggest a test unit. Sklar merely teaches signal comparison for noise removal and restoration of the signal, as an integral part of his passenger aircraft telephony system (col. 6, lines 34-38, col. 7, lines 41-46). Sklar's signal comparison, which the Office Action interprets as signal detection similar to that recited in claim 1, is a standard part of many digital signal receivers for digitizing a signal, and is not related to detecting the presence of a signal as recited in claim 1. Even if the interpretation of the Office Action were possible, Sklar does not teach or suggest a test unit separate from the aircraft telephony system, for insertion into the cabin telephony system by a pair of connectors to detect the presence of signals as recited in claim 1.

The Office Action states that Sklar fails to explicitly disclose fault indication; instead, Jouper is relied upon for this feature. Jouper discloses fault lines (col. 3, line 38) and detecting and indicating system status (col. 3, lines 65-66). However, Jouper fails to teach or suggest a test unit for insertion by a pair of connectors into his system, let alone into an aircraft telephony system to detect signals as recited in claim 1.

Jouper could not have suggested what claim 1 recites. Jouper's fault detection is an integral part of his system and does not resemble a testing unit recited in claim 1. The inherently portable testing unit of claim 1, which includes a "pair of connectors" that are "for inserting ... in-line," and which indicate the presence of a signal only "when the test unit is connected to ... the cabin telephony system," is fundamentally unrelated to what Jouper tries to achieve. Jouper's signal-comparison and fault-detection, mentioned in the Office Action, are built-in parts of the feedback loop of Jouper's control system, while a removable testing unit such as the one in claim 1 provides information to the user and is not a part of any closed-

loop control system. Jouper's fault detection function is so remote from the one recited in claim 1 that he simply could not have suggested what claim 1 recites.

There is no motivation for combining the two references. The Office Action fails to indicate in what manner either applied reference provides the requisite motivation for a Section 103 rejection. Neither Sklar nor Jouper teach or suggest a testing unit insertable into their systems. Moreover, while the core of Sklar's invention is data distribution, not once Jouper uses the word "data" in his entire patent, and of the five times he uses the word "information," none are in the context of Sklar's "data," which further emphasizes the remoteness of the cited references. There simply cannot be any motivation to combine the signal or fault detection portion of Jouper's invention, which is a permanent part of a closed-loop control system for power distribution, with an aircraft cabin telephony system.

For the reasons discussed above, neither of the applied references, taken alone or in combination, disclose the features of claim 1. Even if they did, a *prima facie* case of obviousness under Section 103 requires, *inter alia*, a suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine reference teachings (MPEP at § 2142). The Examiner "must step backward in time and into the shoes worn by the hypothetical "person of ordinary skill in the art" when the invention was unknown and just before it was made." *Id.* "The tendency to resort to "hindsight" based upon applicant's disclosure is often difficult to avoid due to the very nature of the examination process. However, impermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art." *Id.* Furthermore, "the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." MPEP at § 2143.01, citing *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990) (emphasis in the original).

Sklar and Jouper, in addition to not mentioning or inferring a test unit, in combination or individually, are basically in divergent technical fields and one skilled in the art would not have turned to power distribution systems to solve a problem with the aircraft cabin telephony system. In sum, the applicants respectfully request the withdrawal of the Section 103 rejection of claim 1.

Response to Section 103 Rejection of Claims 2-6

Claims 2-6 depend from claim 1 and therefore include, *inter alia*, the features of claim 1. For the reasons discussed above and for the additional features of these claims, a *prima facie* case of obviousness under Section 103 has not been established with respect to these claims and accordingly the Section 103 rejection of these claims should be withdrawn.

5- Claim 7 is directed to a method for testing a cabin telephony system.

Neither of the applied references, taken alone or in combination, disclose or suggest the features of claim 7, which is directed to a method for testing the telephony system of an aircraft cabin that includes detecting the presence of: an AC voltage, a data signal, a DC voltage, and an over-current condition, all when the test unit is connected to the system. Sklar fails to teach or suggest testing an aircraft telephony system by detecting the presence of any of these signals. Jouper also fails to teach or suggest performing the steps recited in claim 7 for testing his system; rather he uses internal signal comparisons as a part of a control loop to manage the load distribution of the system and control the amount of power to each load.

In addition, claim 7 recites using a portable test unit to perform the testing process, which is neither mentioned nor inferred from either of the cited references. Claim 7 is amended to merely clarify the language inherent in the original claim. To clearly spell out the intention of using phrases such as "a test unit," "when a test unit

is connected to ... system," "when a test unit is connected to ... a seat telephony box," "when a test unit is connected to ... system connector," etc., in the original claim 7, the amended claim 7 recites a removable and portable test unit. Accordingly, neither of the applied references, taken alone or in combination, disclose or suggest the features of claim 7.

Furthermore, at least for the reasons described above with reference to claim 1, neither of the applied references provides the necessary motivation for combining the disclosed teachings to arrive at the features of claim 7. Therefore the applicants respectfully submit that, a *prima facie* case of obviousness under Section 103 has not been established with respect to claim 7 and the Section 103 rejection of claim 7 should be withdrawn.

Response to Section 103 Rejection of Claims 8-13

Claims 8-13 depend from claim 7. For the reasons discussed above and for the additional features of these claims, a *prima facie* case of obviousness under Section 103 has not been established with respect to these claims and accordingly the Section 103 rejection of these claims should be withdrawn.

- 6- Claim 14 is directed to a test unit for an aircraft cabin telephony system to detect the presence of data signals, AC voltage, DC voltage, and over-current condition.

Claim 14 is directed to a testing unit that is not a part of the cabin telephony system and, if desired, can be connected to the system to detect the presence of various above mentioned signals within the system. For, *inter alia*, the reasons described above with reference to claim 1, neither applied references provide the necessary motivation for combining the disclosed teachings to arrive at the features of claim 14, nor any of the references alone suggest or teach those features. Therefore, a *prima facie* case of obviousness under Section 103 has not been

established with respect to claim 14 and the Section 103 rejection of claim 14 should be withdrawn.

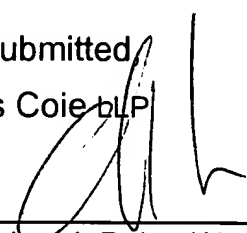
Conclusion

In view of the foregoing, the claims pending in the application comply with the requirements of 35 U.S.C. § 112 and patentably define over the applied art. A Notice of Allowance is, therefore, respectfully requested. If the Examiner has any questions or believes a telephone conference would expedite prosecution of this application, the Examiner is encouraged to call the undersigned at (206) 359-3599.

Respectfully submitted,

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Date: August 4, 2004



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